

**Daffodil International University**  
**Department of Business Administration**  
**Course Title: Statistics for Decision-Making**  
**Course Code: 0542-213**

**Semester: Fall 2024**  
**Time: 1 Hour 30 minutes**  
**Section: All**

**Examination: Midterm Term**  
**Full Marks: 25**  
**Teachers' Initial: DMSA, Urmi, AS**

[NB: Answer all the following questions]

01	a)	Describe the population and sample with example.	(CLO 1, L 1)	1												
	b)	Discuss different sources of data. Explain any one method to collect primary data.	(CLO 1, L 2)	3												
	c)	Identify the following variables according to qualitative, quantitative, discrete or continuous: Gender, Sales volume of Daffodil PC, Soft drink preference, Number of PC sales per month, IELTS score, and Number of courses taken each semester.	(CLO 1, L 1)	3												
02		The number of employees of 30 branches of Sonali Bank LTD PLC are given below; <del>55, 37, 30, 29, 17, 24, 33, 12, 37, 57, 48, 25, 42, 29, 17, 35, 42, 50, 19, 21, 14, 34, 36, 15, 23, 37, 41, 27, 23, 18</del>														
	a)	Is this data is continuous data or discrete data?	(CLO 2, L 3)	1												
	b)	Which 'class interval' do you suggest to organize the data?	(CLO 2, L 3)	1												
	c)	Organize the data according to the frequency distribution table. Find the relative frequency.	(CLO 2, L 3)	4												
03		The unemployment rate in Bangladesh by month is given in the table below: Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 8.7 8.8 <u>8.7</u> 7.8 <u>7.3</u> 7.8 <u>6.6</u> 6.5 6.5 6.8 <u>7.3</u> 7.6														
	a)	What is the arithmetic mean of the Bangladesh unemployment rates?	(CLO 2, L 3)	2												
	b)	Find the median and the mode for the unemployment rates.	(CLO 2, L 3)	2												
	c)	Find the standard deviation of the unemployment rate.	(CLO 2, L 3)	2												
04		The profit of 30 companies of Bangladesh are given below; <table><tr><th>Profit Range (crore)</th><th>Number of companies</th></tr><tr><td>0-20</td><td>5</td></tr><tr><td>20-40</td><td>8</td></tr><tr><td>40-60</td><td>11</td></tr><tr><td>60-80</td><td>4</td></tr><tr><td>80-100</td><td>2</td></tr></table>	Profit Range (crore)	Number of companies	0-20	5	20-40	8	40-60	11	60-80	4	80-100	2		
Profit Range (crore)	Number of companies															
0-20	5															
20-40	8															
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	a)	Find the mean of profit.	(CLO 2, L 3)	2												
	b)	Find the median of profit	(CLO 2, L 3)	2												
	c)	Find the mean deviation of profit.	(CLO 2, L 3)	2												